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BARTLEY, KENNETH				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/801,848

Applicant(s)

KEITH, CHRISTOPHER

Examiner

KENNETH L. BARTLEY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 40-46 and 109-124 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 40-46 and 109-124 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Page No(s)/Mail Date 01/08/2009.

DETAILED ACTION

1. Receipt of Applicant's amendment and response filed January 8, 2009 is acknowledged.

Response to Amendment

2. Claims 1, 40, 109, and 117 are currently amended. Claims 100-108 have been 0009previously canceled. Claims 2-39 and 47-99 have been withdrawn. Claims 1, 40-46 and 109-124 are pending in the application and are provided to be examined upon their merits.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 40-46, and 109-124 have been considered but are moot in view of the new ground(s) of rejection. Nevertheless, the Examiner provides a response below in **bold** where appropriate.

Applicant provides new IDS:

Information Disclosure Statements

As an initial matter, applicant thanks the Examiner for the consideration given to the Information Disclosure Statements (IDSs) dated February 5, 2005; October 9, 2006; December 18, 2006; as well as the IDSs dated January 4, 2008; April 11, 2008; and June 20, 2008. An additional IDS is submitted herewith.

Noted.

Applicant argues prior art of Korhammer, starting pg. 17 of remarks:

Patentability of Claims 1, 40-46, and 109-124 Over Korhammer

The Office Action rejected Claims 1, 40-46, and 109-124 under 35 U.S.C. § 102(e) as allegedly being anticipated by Korhammer et al. (U.S. 6,278,982) (hereafter "Korhammer"). Applicant has carefully considered the Office Action,

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especially the Examiner's comments made in response to applicant's remarks that were presented in reply to a prior Office Action. While applicant continues to believe that Claims 1, 109, and 117 as previously presented are patentable over Korhammer, applicant desires to advance the prosecution of the present application and has amended Claims 1, 109, and 117 to clarify certain aspects of the claims. These amendments are not considered to be narrowing the scope of the claims.

Applicant respectfully submits that Korhammer fails to teach or suggest a method of facilitating trading as claimed.

Applicant cites Korhammer features, pg. 18:

At best, Korhammer teaches a securities trading system that receives trading data from various electronic communication networks (ECNs) and electronic exchanges, and aggregates the data for display to a customer or trader at a terminal. See, e.g., Figure 3 of Korhammer. According to Korhammer, a customer is allegedly able to use a single terminal to view, analyze, and conduct securities transactions with two or more ECNs, alone or in combination with one or more electronic exchanges. See, e.g., the Abstract of Korhammer. A consolidating computer system ("CCS") aggregates order book information from each participating ECN order book computer and electronic exchange. The combined information is displayed to the customer. See, e.g., Figure 2 of Korhammer.

In the Office Action (page 3), the Examiner "respectfully points out that Korhammer teaches a consolidating computer system (CCS)." Applicant respectfully submits that such teaching is not determinative of the patentability of the claims. To the extent the Examiner seeks to equate Korhammer's CCS with the "computer" claimed in Claim 1, applicant points out that at least two market processes, a buying trading process, and a selling trading process, all of which are computer software processes, are executing on the same computer. Each of the market processes "provides a distinct and separate market that is configured to match and execute orders received from the buying and selling trading processes." Furthermore, the buying and selling trading processes are able "to trade with each other via the market processes" that are "executing on the same computer." To the contrary, the CCS taught by Korhammer cannot be equated with the computer claimed in Claim 1 as the CCS simply does not satisfy the elements recited in Claim 1.

From above the Applicant is arguing that buying trading process and a selling trading process are able "to trade with each other via the market processes" that are "executing on the same computer."

Applicant's specification sole teaching on software processes:

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"In contrast, as used herein and in the claims, the term "platform" indicates a computer system for supporting software processes that can exist independently of each other and that communicate with each other in a standardized manner. That is, the platform makes it easier for processes to communicate with each other." ([0043] of Pub. No. 2001/0044770)

With all due respect, software processes could be anything and there is no teaching that there is a "buying trading process and a "selling trading process." Secondly, one application program in C++ can have hundreds of functions where each one could be considered a process. There is no description in Applicant's specification that would allow someone in the art to know what Applicant is referring to by software processes.

Further, Korhammer et al. provides for buying and selling:

The CCS performs a number of interrelated functions that may be carried out on one computer or a network of computers. (col. 6, lines 53-55)

"These orders will be incorporated in the market data distributed by the CCS. The trading terminal can also execute buy or sell transactions against listed bids and offers, and by using the CCS place the order using the correct protocol for the relevant ECN or electronic exchange. (col. 4, lines 59-64) Also Fig. 2. Inherent in executing a buy or sell is matching.

Therefore, the Examiner argues that Korhammer et al. satisfies the elements of claim 1.

Applicant continues, pg. 19 of remarks:

The Office Action (page 3) alleges that Korhammer teaches "more than one market process." What is missing in Korhammer is a teaching that the market processes are "executing, during an overlapping time interval on a computerwherein the at least two market processes are computer software processes executing on the same computer," as claimed in Claim 1. Contrary to Claim 1, Korhammer teaches multiple different systems (ECNs and electronic exchanges) that are each separately executing on different computer systems using different protocols. Korhammer merely teaches a "consolidation system" (Col. 4, lines 13-14) that communicates with each of the different ECNs and exchanges according to their native protocols and consolidates the market information into a single display for a user.

The Examiner cites Korhammer et al. abstract:

"A consolidating computer system supplies the market information and processes the transactions. The consolidating computer system aggregates order book information from each participating ECN order book computer including security, order identification, and bid/ask prices information."

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Also, regarding overlapping time intervals, Korhammer discloses:

"If it is a market order, that is an order to buy or sell at market prices, then the CCS 100 determines the market maker or ECN at the best price 420 and routes the order to the market maker or ECN member 407. If this does not fully satisfy the quantity of the customer's order 408, the next ECN or market maker at the best price is selected. This process continues until the entire order has been satisfied." (40) Therefore, buy-sell processes are occurring on the CCS until the order is satisfied by the market maker at the ECN.

On page 4 of the Office Action, the Examiner argues, "Therefore, different customers are able to access different market data, which requires the capability to execute during overlapping time periods. Also NASDAQ has its respective market methodologies, as does ECN 150, for example." Applicant respectfully submits that this argument is inapposite to the patentability of the claims. Korhammer's CCS only aggregates order book information that is received from different ECNs and electronic exchanges. The CCS neither manages the order books of the ECNs and electronic exchanges nor executes orders. Rather, the CCS is merely an intermediary for traders to receive data from the ECNs and electronic exchanges and to submit trader's orders to the ECNs and electronic exchanges.

Yes, but is Applicant arguing that their invention manages order books for other exchanges and executes orders? Is Applicant stating or implying their invention is an exchange?

From Applicant's abstract:

"A platform supports multiple processes, including market processes having respective market methodologies, trading processes having trading methodologies, platform processes providing services to the market processes and trading processes, and representation processes for coupling the market processes to external markets. The trading processes interact with each other and with external markets through the market processes."

The Examiner does not read in Applicant's claims where they are updating order books of external markets or executing orders. Korhammer et al. can match orders, where the orders are executed by distinct and separate markets. Korhammer et al. CCS itself cannot execute orders because an exchange requires settlement capabilities, clearinghouse interfaces, SEC requirements for trades. Applicant's is also not, for example, executing orders?

The Examiner is just emphasizing that Korhammer et al. would not qualify as an exchange and therefore executing an order would be inappropriate for

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Korhammer et al. to do since they are not complying with SEC or security laws and meet other requirements necessary for executing a trade.

Applicant continues on page 19:

Regarding the CCS, the Examiner further argues on page 4 of the Office Action, "Therefore, Korhammer is teaching an order server with an analytical engine that directs order placement to different markets." Such teaching, however, is not relevant to a prima facie rejection of the claims. The "different markets" (e.g., ECNs and electronic exchanges) are not executing on the CCS but rather are executing on separate computer systems. This is hardly equivalent to "executing, during an overlapping time interval on a computer, at least two market processeswherein the at least two market processes are computer software processes executing on the same computer, and wherein each of the market processes provides a distinct and separate market that is configured to match and execute orders received from buying and selling trading processes," nor is it relevant to "automatically enabling at least a buying trading process and a selling trading process to trade with each other via the market processeswherein the buying and selling trading processes are computer software processes that are executing on the same computer as the market processes."

With all due respect, there are enablement issues if Applicant is providing a trading exchange for executing orders. One simple example is how does Applicants invention comply with SEC requirements and where is this discussed in the specification?

On page 5 of the Office Action, the Examiner points to Korhammer and alleges, "Therefore, Korhammer is not teaching execution on different system using different protocols but is teaching execution on a system that converts different protocols to a common protocol." It is unclear what the Examiner means by "execution" in this regard.

The Examiner was making the point that Korhammer was not simply mapping but was able to match orders by a common protocol. Converting different protocols to a common protocol requires an execution of some type.

If the Examiner is referring to execution of orders (i.e., matching buying and selling orders and completing trades), the statement is incorrect because the execution of orders, according to Korhammer, does not occur at the CCS but rather at the various ECNs and electronic exchanges. The CCS is merely a go-between that routes orders from a customer or trader to an ECN or electronic exchange for execution. See, e.g., Col. 8, lines 39-46, of Korhammer.

With all due respect, Korhammer is able to match orders. They are not able to complete orders since this requires an exchange.

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If the Examiner is referring to execution of computer processes, namely, market processes and buying and selling trading processes as claimed, the statement is incorrect because it is plain in Korhammer that the ECNs, electronic exchanges, and the trading terminals are all executing separate from the CCS. This is shown both figuratively and operationally in Figures 2 and 3 of Korhammer and in the corresponding description provided by Korhammer. In no sense does Korhammer consider the ECNs, electronic exchanges, and the trading terminals as all executing on the same computer as claimed in the present application. Indeed, the systems on which the ECNs 50, 51, electronic exchanges 52, and the trader terminal 101 are executing are so different that the CCS must employ multiple protocol converters 200, 201, 202, 207 to translate communications between the ECNs, electronic exchanges, and the trader terminal.

With all due respect, the same can be said about Applicant's specification. Fig. 1, ref. 80, 82, and 83 of Applicant's specification all interact with external markets. Further, Applicant's abstract states...

Current wording...

The trading processes interact with each other and with external markets through the market processes. (Abstract)

This is what Korhammer et al. does.

From above, Applicant argues:

"In no sense does Korhammer consider the ECNs, electronic exchanges, and the trading terminals as all executing on the same computer as claimed in the present application."

The Applicant is stating their system is also an electronic exchange? Since the Applicant is now apparently claiming an exchange for trading securities, the Examiner provides a 35 USC 112, 1st paragraph enablement rejection.

The Office Action (page 5) recites Korhammer's discussion of protocol converter 200 to 202 at Col. 7, lines 29-33, and alleges this protocol conversion "provides the ability to execute orders for at least two market processes." To be more precise, this protocol conversion enables the CCS to send orders for execution "on the appropriate ECN or electronic exchange." The orders are not executed on the CCS. Indeed, the markets provided by the ECNs and electronic exchanges are operating on different computer systems, separate from the CCS.

Korhammer does not provide disclosing executing securities. This would require disclosure of how they comply with SEC rules (e.g. how is fair trading implemented by their order process). Do they use some type of FIFO system?

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How settlement issues occur, how do they interact with clearinghouse's? How long does it take between trade and settlement? How and what information is provided to regulators to comply with securities laws. These are just a few of the many issues Korhammer would need to disclose.

On page 6 of the Office Action, the Examiner adds, "As pointed out above, Korhammer provides an order server and analytical engine to break up an order and route it to a proper exchange, so a single order can be placed in different markets. Further, as pointed out above, CCS uses a common protocol. The Examiner respectfully maintains this is executing on the same platform at least two market processes." Applicant respectfully disagrees. The capacity of the CCS to route an order, or portion of an order, to an exchange, does not suggest that the exchange is executing on the same computer as the CCS. Furthermore, it is incorrect to equate the order server 211 and analytical engine 206 of Korhammer with "market processes" as claimed. The claims specifically define the market processes as each providing "a distinct and separate market that is configured to match and execute orders received from buying and selling trading processes." The order server and analytical engine of Korhammer do not satisfy these elements of the claims.

Applicant's system places and executes orders. The Examiner reviews Applicant's specification for this teaching:

"In accordance with another aspect of this invention, there is provided a method of facilitating trading. A market process having a market methodology selected from a set of market methodologies is operated, and a representation process for selectively transmitting an order action between the market process and an external market is operated." ([0011] of Pub. No. 2001/0044770)

"The platform of system 5 embodies a protocol for standardizing market trading methodologies, order representation and processing, and data formats." ([0042] of Pub. No. 2001/0044770)

"Platform services 60 includes, among other things, linked order execution manager 61, platform status monitor 62, contra-party preference updating 63, system status board 64C, market status board 65, broadcast services 66 and stop order manager 67." ([0042] of Pub. No. 2001/0044770)

"An ELF may be thought of as a virtual floor broker that operates at electronic speeds. Forming an ELF is the culmination of a procedure involving configuring an order-handling program with specifications from a trader, and executing the configured program on the platform of system 5 to create an order handling engine, also referred to herein as a trading

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process. An order ELF may be coupled to as many order umpires as desired."

The above is interesting, but still not executing an order. This is simply controlling order information, like Korhammer. The Examiner is specifically looking for order execution stated above...

"...execute orders received from buying and selling trading processes."

"An order umpire may be thought of as a formal or informal market that defines and implements the rules of engagement by which information or merchandise is exchanged between ELF's." ([0047 of Pub. No. 2001/0044770)

This is close, but Korhammer et al. exchanges order information based on rules of engagement.

"System 5 is connected to external users 70 and 72, shown as order rooms 70 and 72, and external exchanges 80, 82 and 83 through appropriate communication channels, such as dedicated or dial-up lines, or via the Internet." ([0050] of Pub. No. 2001/0044770)

No, this is exactly what Korhammer et al. does (Fig. 2).

"Typically, order ELF (oE) programs are agents representing orders from customers. An ELF program interacts with umpire programs and platform services 60; an ELF program does not directly communicate with any other ELF program. Each ELF program also communicates with its owner external to system 5." ([0058] of Pub. No. 2001/0044770)

No, Korhammer et al. does this.

"oE 10 may execute some of its order in one way, and the rest of its order in other ways. oE 10 repeats its cycle of price discovery, decision and action until it has paired its order or has returned the order to the order room for other action." ([0083] of Pub. No. 2001/0044770)

With all due respect, price discovery and matching prices is NOT order execution. Besides, Korhammer et al. does this.

"After an action has been taken, at step 175, oE 10 tests whether the entire order has been paired. If so, oE 10 reports the results to order room 70 and processing is complete." ([0084] of Pub. No. 2001/0044770)

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OK. Well this sends the paired order back to the buyer or seller so they can place the order with an exchange.

"FIG. 5 is an overall flowchart of an oU, such as oU 30, showing that the oU has functions that are executed at various times: receiving orders, responding to action/discover requests, pairing, generating pricing and pairing data streams, and receiving data." ([0098] of Pub. No. 2001/0044770)

Nothing here about executing an order.

With all due respect to the Applicant, the Examiner is unable to find in the Application the ability to execute an order on Applicant's system. The Examiner requests Applicant to provide the specific section(s) where it teaches executing an order on their system, where such an order involves buying and selling.

At the bottom of page 6, the Examiner recites Col. 8, lines 39-46, of Korhammer and alleges, "This teaches at least two trading processes, where an order is either a buy or sell. These can be traded on different markets." This portion of Korhammer, as repeated in the Office Action, refers to a "single order." The order may be routed entirely to one ECN or electronic exchange, or it may be routed in parts to different ECNs or electronic exchanges. But the order is still a single order for a single buy or sell side of a trade. This portion of Korhammer nowhere suggests that the CCS enables "at least a buying trading process and a selling trading process to trade with each other via the market processes wherein the buying and selling trading processes are computer software processes that are executing on the same computer as the market processes," as claimed in Claim 1 of the present application.

The Examiner agrees that Korhammer et al. is not acting as an exchange, where buying and selling takes place.

Applicant argues one computer, starting pg. 22 of remarks:

Turning to page 7 of the Office Action, the Examiner quotes Korhammer at Col. 4, lines 22-28. However, even if each participating ECN order book computer, each participating electronic exchange, and the CCS form a "computer network," as suggested by Korhammer, it is incorrect to equate this computer network with the "computer" that is claimed in Claim 1. By executing on the same computer at least two market processes as well as buying and selling trading processes, as claimed in Claim 1, the complex communication and translation structures of Korhammer are not needed.

Applicant amended claim 1 to one computer. Therefore, Applicant's claim does not require Fig. 1 ref. 70, 72, 80, 82, 83, and 90 to operate, only ref. 5. Applicant is arguing that Fig. 1, ref. 5 is capable of executing a buy and sell order.

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The various computer systems in Korhammer may have communication channels between them and thus form a "computer network," but that does not mean that the various computer systems constitute "a computer" as claimed in Claim 1.

Korhammer et al. teaches:

The CCS performs a number of interrelated functions that may be carried out on one computer or a network of computers. (col. 6, lines 53-55)

Korhammer et al. teaches one computer. It is unclear how this is different from "a computer."

As noted earlier, in reference to Figure 2 of Korhammer, it is readily observed that the ECNs 50, 51, 53, and 54 and the electronic exchange 52 are not executing on the CCS 100. The ECNs 50, 51, 53, and 54 and the electronic exchange 52 are executing on different computer systems as illustrated by separate dashed-line boxes. The ECNs 50, 51, 53, and 54 and the electronic exchange 52 may communicate with the CCS 100, as illustrated by the arrowed lines in Figure 2, but this does not constitute executing the ECNs 50, 51, 53, and 54 and the electronic exchange 52 on the CCS 100. Again, nowhere does Korhammer suggest "executing...at least two market processes" as well as "buying and selling trading processes...on the same computer."

Korhammer et al. may not use the exact words of Applicant, but Korhammer provides the same function. For example, "executing...at least two market processes" is a very broad statement. Korhammer provides buying and selling capabilities, which are two market processes. Also, "buying and selling trading processes... on the same computer." Korhammer provides for this very broad statement since buying and selling are trading processes.

To the extent the Examiner considers a process operating on the terminal 101 to be a "trading process" and the CCS 100 to be the claimed "computer," Korhammer nowhere describes the process of terminal 101 as executing on the CCS 100, much less "executing on the same computer as the market processes." Indeed, the terminal 101 uses the CCS 100 as a intermediary to translate communications with the ECNs 50, 51, 53, and 54 and the electronic exchange 52.

Based on the above comments from the Applicant and the above paragraph, Applicant is clearly trying to indicate their system provides order execution capabilities and that claim 1 should be interpreted this way.

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Applicant submits that Korhammer fails to teach or suggest the elements recited in amended Claim 1 and therefore does not support a prima facie case of anticipation. Claim 1 should be allowed. Additionally, Claims 40-46 should be allowed, both for their dependence on Claim 1 and for the additional subject matter they recite. For example, with respect to Claim 45, the Office Action recites Korhammer at Col. 10, lines 6-8, where a customer specifies the number of shares it wishes to purchase and the price of the purchase. However, it is not clear at all how such disclosure applies to Claim 45, which recites the operational mode of a market process as "an in process mode in which the market process has priority over other market processes for executing a trade."

The Examiner provides a new rejection based on the amended claims below.

Applicant provides claims 109 and 117.

For reasons similar to those discussed above with respect to Claims 1 and 40-46, Claims 109-116 should be allowed. Korhammer neither teaches nor suggests a "system for facilitating trading, comprising" at least one processing component in a single computer system" that is configured as claimed in Claim 109.

Further, for reasons similar to those discussed above with respect to Claims 1 and 40-46, Claims 117-124 should also be allowed. Korhammer neither teaches nor suggest a "computer- accessible medium having executable instructions stored thereon for facilitating trading, wherein the instructions, when executed, cause a computer to" execute market processes and trading processes "on the same computer" as claimed in Claim 117.

The Examiner refers to the above arguments regarding claim 1 in regards to the above claims.. Also, the Examiner provides a new rejection below based on the amended claims.

Examiner Request

4. The Applicant is requested to indicate where in the specification there is support for amendments to claims should Applicant amend. The purpose of this is to reduce potential 35 U.S.C. §112, 1st paragraph issues that can arise when claims are amended without support in the specification. The Examiner thanks the Applicant in advance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 40-46, and 109-124 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7. Claim 1 has:
“...wherein the at least two market processes are computer software processes executing on the same computer, and wherein each of the market processes provides a distinct and separate market that is configured to match and execute orders received from buying and selling trading processes,...”

The Examiner is unable to find support that would enable one skilled in the art to use the specification to execute buy and sell orders. Specifically, the specification fails to disclose enough details that would allow someone to provide this capability. Also missing are other requirements. For example, how are security laws and SEC requirements for order execution provided by the system? How does applicant's invention insure fair trading between parties? How does the system report to the SEC and what are they required to report? How is such information communicated? If the invention is not required to comply with SEC rules, why not and how is this communicated to the SEC and parties trading on applicant's system? Ignoring securities laws, how does Applicant's system settle trades? What clearinghouse is used for security settlement and how is this linked to the system? How does Applicant's system know which securities to list (how are listings handled) and what is appropriate? How are stocks transferred?

The Examiner request the Applicant to provide where in their application order execution is taught for buy and sell trades on a computer. Independent claims 109 and

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117 have similar problems. Claims 40-46, 110-116 and 118-124 are rejected because they depend from their respective independent claim.

Claims 40-46, 110-116 and 118-124 are rejected because they depend from their respective independent claim.

8. Claims 1, 40-46, and 109-124 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

9. Claim 1, for example has (independent claims 109 and 117 have similar issues): "...executing, during an overlapping time interval on a computer...wherein the at least two market processes are computer software processes executing on the same computer,"

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The Examiner cannot find software processes operating on the same computer, but rather operating on a computer system:

"In contrast, as used herein and in the claims, the term "platform" indicates a computer system for supporting software processes that can exist independently of each other and that communicate with each other in a standardized manner. That is, the platform makes it easier for processes to communicate with each other." ([0043] of Pub. No. 2001/0044770)

Further, there is no provision that market processes are software processes. In fact, the Examiner points out that the above teaches software processes existing independently from each other and that can communicate with each other in a standardized manner (see comment below).

The Examiner also finds a general purpose computer, but not software processes nor a situation where two market processes have respective market methodologies since this system standardizes the market methodologies with a protocol...

"System 5 is a general purpose computer or network of computers programmed in accordance with the present invention and functions as a platform for allowing electronic liquidity finder (ELF) programs and umpire programs to interact. The platform of system 5 embodies a protocol for standardizing market trading methodologies, order representation and processing, and data formats." ([0042] of Pub. No. 2001/0044770)

10. Claim 1, for example has (independent claims 109 and 117 have similar issues): "... buying and selling trading processes are computer software processes that are executing on the same computer as the market processes."

The Examiner is unable to find support for this in the specification. Therefore, the application does not provide disclosure to one of ordinary skill in the art how to use one computer for software processes based on two market processes, where the two market processes have respective market methodologies. The Examiner notes that a computer can have a protocol for standardizing market trading methodologies, where software processes exist independently from each other.

Claims 40-46, 110-116 and 118-124 are rejected because they depend from their respective independent claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1, 40-46, and 109-124 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,278,982 to Korhammer et al. in view of U.S. Patent No. 7,035,819 to Gianakouros et al.

[Note that the analysis for the method claims (1, 40-46) also applies to the respective system claims (109-110) and product claims (117-124)].

Regarding claims 1, 109, and 117

(claim 1) A method of facilitating trading, comprising:

Korhammer et al. discloses: a platform for executing multiple processes:

"In this system, each customer uses a single application on a single trader terminal to view, and analyze security market information from and to conduct security transactions with two or more ECNs, or other comparable ATs, alone or in combination with one or more electronic exchanges. A consolidating computer system ("CCS") supplies the market information and processes the transactions in the present system." (col. 4, lines 14-21)

executing, during an overlapping time interval on a computer, at least two market processes having respective market methodologies, wherein the at least two market processes are computer software processes executing on the same computer, and wherein each of the market processes provides a distinct and separate market that is configured to match and execute orders received from buying and selling trading processes, and

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"The present invention generally relates to computer systems for trading and analyzing selected securities, and more particularly, software that aggregates and integrates securities trading information and order placement from various alternative trading systems ("ATS"), such as electronic communication networks ("ECN"), with NASDAQ or other electronic exchanges." (col. 1, lines 7-13)

The CCS performs a number of interrelated functions that may be carried out on one computer or a network of computers. (col. 6, lines 53-55)

"A consolidating computer system ("CCS") supplies the market information and processes the transactions in the present system." (col. 4, lines 20-22) Fig. 3, ref. 100 has disparate market methodologies (e.g. ECN1, ECN2, and NASDAQ) converted on the system.

"These orders will be incorporated in the market data distributed by the CCS. The trading terminal can also execute buy or sell transactions against listed bids and offers, and by using the CCS place the order using the correct protocol for the relevant ECN or electronic exchange. (col. 4, lines 59-64) Also Fig. 2. Inherent in executing a buy or sell is matching.

automatically enabling at least a buying trading process and a selling trading process to trade with each other via the market processes according to the respective market methodologies, wherein the buying and selling trading processes are computer software processes that are executing on the same computer as the market processes.

"...conduct security transactions with two or more ECNs, or other comparable ATSS, alone or in combination with one or more electronic exchanges. (col. 4, lines 16-20)

"When a customer 10 wishes to place an order, he/she may use trading terminal 101 to send the order to the order server 211 which may use information from the analytical engine 206 to determine when and where to place the order, based on parameters indicated by the customer. For example, the order server 211, using information from analytical engine 206, could break up a single order, routing it to more than one ECN and/or electronic exchange." (col. 8, lines 39-46)

Korhammer et al. discloses a method and system for aggregating security information from different exchanges using one computer and allows for placing buy and sell order to exchanges. Korhammer et al. does not disclose executing a buy and/or sell order.

Glanakouros et al. teaches order execution:

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"In an embodiment of the method and system, marketable retail orders which match with one or more collected institutional indications, are routed from a Dynamic Order Router (DOR) at each broker-dealer to a Central Order-Match Box (COMB) to be executed against the one or more matched collected institutional indications." (Abstract)

In their background....

"In the case of non-exchange-listed (that is, NASDAQ) securities, and of exchange-listed securities traded in the OTC market (that is, "Third Market" securities), both retail marketable orders and retail non-marketable orders have historically been executed by OTC market-makers acting in a principal capacity pursuant to order-routing and remuneration arrangements with retail brokerage firms, or they have been "internalized" by retail brokerage firms routing these orders to specialist or dealer affiliates which execute them in a principal capacity. Regulatory changes enacted by the Securities and Exchange Commission (SEC) in recent years have made it possible for some of these orders to interact with trading interest other than that of the market-maker or dealer to whom they were routed for execution. Specifically, the SEC now requires market-makers (as well as exchange specialists and other dealers) to (1) display certain customer limit orders in their public quotations, where they are visible to, and sometimes accessed by, other market participants, and (2) desist from "trading ahead" of unexecuted orders in their possession by buying or selling any security as principal at a price which would satisfy an unexecuted customer order in that security. However, while these regulations sometimes result in retail non-marketable orders being executed against retail marketable orders or against trading interest from other professional investors, it remains the case today that retail marketable orders received by OTC market-makers and other dealers are rarely, if ever, available for execution against the trading interest of other professional market participants." (col. 1, lines 66-67 and col. 2, lines 1-27)

"An embodiment of the present invention is directed to a computerized trading network m (the "System") that collects from broker-dealers, institutions (such as pension funds and mutual funds), and other professional market participants invisible, anonymous, binding indications of interest to buy and sell specific equity securities at passively determined, non-discrete prices." (col. 3, lines 26-32)

"In embodiments of the present invention, non-marketable orders are never routed to the System for execution and marketable orders are only routed to the System to satisfy existing institutional trading interest already present in the System. As a result, all retail orders routed to the System are executed immediately against one or more offsetting institutional

indications. For each transaction, the System generates appropriate execution reports and transmits these to the retail and institutional parties to the transaction, as well as to a Self Regulatory Organization and other industry reporting systems for the purpose of complying with applicable trade reporting and processing procedures." (col. 5, lines 55-67)

It would have been obvious to one of ordinary skill in the art at the time of invention to include in the CCS system of Korhammer et al. the order execution and reporting capabilities of Giankouros et al. for allowed SEC orders since the claimed invention is merely a combination of old elements, and in the combination each element would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding claims 40, 110, and 118:

40. The method of claim 1, further comprising automatically maintaining a market process status file on the computer, wherein the market process status file includes a status of each of the market processes.

Korhammer et al. teaches:

"The CCS aggregates order book information from each participating ECN order book computer including security, order identification, and bid/offer price information." (col. 4, lines 28-31)

Regarding claims 41, 111, and 119:

(claim 41) The method of claim 40, wherein the market process status file is accessible to at least one of the market processes.

Korhammer et al. teaches:

"The trading terminal both displays the market information provided to it by the CCS and allows the customer to place bid and/or offer orders and route them through the CCS to any ECN or electronic exchange for which the customer is permissioned. These orders will be incorporated in the market data distributed by the CCS." (col. 4., lines 55-60)

Regarding claims 42, 112, and 120:

(claim 42) The method of claim 40, wherein the market process status file is accessible to at least one of the trading processes.

Korhammer et al. teaches:

"The trading terminal both displays the market information provided to it by the CCS and allows the customer to place bid and/or offer orders and route them through the CCS to any ECN or electronic exchange for which the customer is permissioned. These orders will be incorporated in the market data distributed by the CCS." (col. 4., lines 55-60)

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Regarding claims 43, 113, and 121:

(claim 43) The method of claim 42, further comprising checking an access permission for a trading process before providing the trading process with access to the market process status file.

Korhammer et al. teaches:

"If, however, customer were only a member of ECN251 and NASDAQ, the CCS 100 would not provide order book information from ECN150, metric calculations based on information from ECN150, or execute any orders to ECN150." (col. 6, line 67 and col. 7, lines 1-5)

"It is yet again an object of this invention to limit the information supplied from the ECNs to a customer of the present invention to only those ECNs and electronic exchanges where the customer is an ECN member or electronic exchange user." (col. 4, lines 3-7)

Regarding claims 44, 114, and 122:

(claim 44) The method of claim 40, further comprising automatically updating in the market process status file the status of at least one of the market processes that has changed its operational mode.

Korhammer et al. discloses:

"If it is a new order, the CCS 100 adds to the master order book the new order and then sorts the order book by price and other factors for a given security 302. If it is not a new order, the computer then determines whether it is a delete order 303. If it is a delete order, the computer removes the order from the master order book 304." (col. 9, lines 37-42) In this way, an order can be changed (from limit to market order for example) and the order book is updated.

Regarding claims 45, 115, and 123:

(claim 45) The method of claim 44, wherein the operational mode is an in process mode in which the market process has priority over other market processes for executing a trade.

Korhammer et al. discloses a limit order:

"The customer also specifies the number of shares it wishes to purchase at space 602 and the price at which he/she wishes to purchase at 603." (col. 10, lines 6-8)

Regarding claims 46, 116, and 124:

(claim 46) The method of claim 44, wherein the operational mode is a fast symbol mode in which a trade is available for execution without regard to the status of the trade as represented in a different market provided by another of the market processes.

Korhammer et al. teaches a market order, where order execution would be immediate:

"If no price is indicated, this is a market order, that is the user is willing to buy the security at the best available price." (col. 10, lines 8-10)

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENNETH L. BARTLEY whose telephone number is (571)272-5230. The examiner can normally be reached on Monday through Friday, 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jagdish Patel can be reached on (571) 272-6748. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAGDISH N PATEL/

Primary Examiner, Art Unit 3693